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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,736	05/18/2006	Motohiro Itadani	4918-0107PUS1	3542
2292	7590	12/18/2007	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			MOONEY, MICHAEL P	
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FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/579,736	Applicant(s) ITADANI ET AL.	
	Examiner Michael P. Mooney	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/24/06, 5/18/06</u> . | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itakura et al. (7164458).

Itakura et al. teaches a liquid crystal display device of an in-plane switching mode (e.g., figs. 4, 10) which comprises a pair of polarizers which are a polarizer at an output side and a polarizer at an incident side and disposed at relative positions such that absorption axes of the polarizers are approximately perpendicular to each other (e.g., figs. 4, 10) and at least optically anisotropic member (A), optically anisotropic member (B) and a liquid crystal cell which are disposed between the pair of polarizers, wherein $n_{zA} > n_{yA}$ and $n_{zB} > n_{yB}$ when, with respect to optically anisotropic member (A) and optically anisotropic member (B), refractive indices in a direction of an

in-plane slow axis are represented by $n_{\text{sub.xA}}$ and $n_{\text{sub.xB}}$, respectively (e.g., figs. 4, 10), refractive indices in a direction in-plane and perpendicular to the direction of an in-plane slow axis are represented by $n_{\text{sub.yA}}$ and $n_{\text{sub.yB}}$, respectively (e.g., figs. 4, 10), and refractive indices in a direction of a thickness are represented by $n_{\text{sub.zA}}$ and $n_{\text{sub.zB}}$, respectively (e.g., figs. 4, 10) ; the in-plane slow axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel or approximately perpendicular to each other (e.g., figs. 4, 10); and the in-plane slow axis of optically anisotropic member (A) and the absorption axis of a polarizer disposed closer to optically anisotropic member (A) are disposed at relative positions approximately parallel or approximately perpendicular to each other (e.g., figs. 4, 10; col. 5 line 32 to col. 9 line 40).

Although Itakura et al. does not explicitly state “each measured using light having a wavelength of 550 nm” it would have been obvious to do so because it is conventionally known to measure the said refractive indices using light having a wavelength of 550 nm for the purpose of measuring values that are useful and/or in the middle of the visible spectrum.

Thus claim 1 is rejected.

Although Itakura et al. does not explicitly state “wherein an absolute value of a difference between $n_{\text{sub.xA}}$ and $n_{\text{sub.zA}}$ is 0.003 or smaller, and an absolute value of a difference between $n_{\text{sub.xB}}$ and $n_{\text{sub.zB}}$ is 0.003 or smaller” it would have been obvious to do so because it is conventionally known that the materials typically used for the refractive index ranges/values suggested by Itakura et al. have “an absolute value of

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a difference between $n_{\text{sub.xA}}$ and $n_{\text{sub.zA}}$ is 0.003 or smaller, and an absolute value of a difference between $n_{\text{sub.xB}}$ and $n_{\text{sub.zB}}$ is 0.003 or smaller” for the purpose of using reliable art-established materials. Thus claim 2 is rejected.

Itakura et al. teaches wherein an absolute value of a difference between $n_{\text{sub.xA}}$ and $n_{\text{sub.zA}}$ is 0.003 or smaller, and $n_{\text{sub.xB}} > n_{\text{sub.zB}}$ (e.g., figs. 4, 10). Thus claim 3 is rejected.

Itakura et al. teaches wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member (B) are disposed between the liquid crystal cell and the polarizer at the incident side, and the in-plane slow axes of optically anisotropic member (A) and optically anisotropic member (B) are disposed at relative positions approximately perpendicular to each other (e.g., figs. 4, 10). Thus claim 4 is rejected.

Itakura et al. teaches wherein the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (A) is disposed at a side of the liquid crystal cell (e.g., figs. 4, 10). Thus claim 5 is rejected.

Itakura et al. teaches wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other,

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optically anisotropic member (A) and optically anisotropic member (B) are disposed between the liquid crystal cell and the polarizer at the output side, and the in-plane slow axes of optically anisotropic member (A) and optically anisotropic member (B) are disposed at relative positions approximately perpendicular to each other (e.g., figs. 4, 10). Thus claim 6 is rejected.

Itakura et al. teaches wherein the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (B) is disposed at a side of the liquid crystal cell (e.g., figs. 4, 10). Thus claim 7 is rejected.

Itakura et al. teaches wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, and optically anisotropic member (A) and optically anisotropic member (B) are disposed separately between the liquid crystal cell and the polarizer at the incident side and between the liquid crystal cell and the polarizer at the output side (e.g., figs. 4, 10). Thus claim 8 is rejected.

Itakura et al. teaches wherein the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (A) is disposed between the liquid crystal cell and the polarizer at the output side (e.g., figs. 4, 10). Thus claim 9 is rejected.

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Each and every element of each of claims 10-15 is rendered as obvious by the reasons and references given above and/or conventionally known art-established principles (e.g., figs. 4, 10; col. 5 line 32 to col. 9 line 40). Thus claims 10-15 are rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael P. Mooney
Examiner
Art Unit 2883



Frank G. Font
Supervisory Patent Examiner
Art Unit 2883

FGF/mpm
12/8/07